

CHAPTER 3

COASTAL POLICIES AND AUTHORITIES

The New Hampshire Coastal Program is based on the policies presented in this Chapter. These policies are drawn from existing state laws which constitute the legal basis for state agency decisions in the coastal area. State agencies are responsible for enforcing these policies in accordance with state statutes and regulations adopted thereto.

Together, these policies reflect state priorities aimed at balancing development needs with resource protection and provide consistent guidelines for coordinated state agency action in the coast. State and federal agency actions must be consistent with these policies.

To aid the reader in finding information relevant to his/her concern, the state coastal policies have been grouped into six topics. Within each of these areas, policies are enumerated as follows:

Topic I: Natural Resources

- Policy 1 Coastal Resource Protection
- 2 Fish and Wildlife Management
- 3 Offshore/Onshore Sand and Gravel Removal
- 4 Oil Spill Prevention and Cleanup
- 5 Rare and Endangered Species
- 6 Unique Natural Areas

Topic II: Recreation and Public Access

- Policy 7 Recreation Facilities

Topic III: Managing Coastal Development

- Policy 8 Rural Quality of Great Bay
- 9 Floodplain Protection
- 10 Air Quality Protection
- 11 Water Quality
- 12 Energy Facilities Siting

Topic IV: Coastal Dependent Uses

- Policy 13 Coastal Dependent Uses
- 14 Dredging and Dredge Spoil Disposal

Topic V: Historic and Cultural Resources

- Policy 15 Historic Preservation

Topic VI: Marine and Estuarine Research and Education

- Policy 16 Research and Education

In the following text, the supporting State laws and regulations are listed for each policy and are labeled indicating whether they are enforcement or enhancement in nature. Enforcement laws and regulations are those which form the basis for administrative decisions to approve or disapprove activities which fall within the jurisdiction of a specific agency (i.e. RSA 483-A, Wetlands Board, Permitting authority). They are also those laws and regulations contained in the Appendix to both the Draft Environmental Impact Statement (and this document where comments and subsequent changes were made or authorities were added). If changed, these laws and regulations would require review by the Department of Commerce to determine the effect on the New Hampshire Coastal Program. Enforcement laws form the basis for the Federal Consistency Review Process.

Enhancement laws and regulations are non-regulatory. They grant general administrative authority to State agencies and allow flexibility in their administration in support of the coastal policies (i.e. RSA 216-B, Department of Resources and Economic Development, Assigns responsibility for beach and erosion control at Hampton Harbor).

TOPIC I

PROTECTION OF NATURAL RESOURCES

Policy 1

Coastal Resource Protection

Protect and preserve and, where appropriate, restore the water and related land resources of the coastal and estuarine environments. The resources of primary concern are:

- *coastal and estuarine waters*
- *tidal and freshwater wetlands*
- *beaches*
- *sand dunes*
- *rocky shores*

Explanation

The waters, marshes, beaches, sand dunes, rocky shores and other natural resources of coastal New Hampshire are important local, state and national resources. The coastal waters are important for commercial and recreational reasons, and they provide habitat for a wide variety of fish, shellfish, birds and plants. Saltmarsh is extremely valuable fish and wildlife habitat, it is an integral part of the coastal and estuarine food chain, and it serves as a "natural treatment" for runoff. New Hampshire's beaches are some of the State's primary tourist attractions, in addition to being one of man's "first lines of defense" against storms when left undeveloped.

These valuable resources, when lost or degraded, can no longer maintain their natural functions. Unfortunately, man's development and use of the coastal environment often comes in conflict with maintaining the integrity of these resources. The quality of the coastal environment is critical not just to the quality of life, but to the economy as well. A healthy ecosystem helps maintain a healthy economy. This is true for primary industries, such as commercial fisheries, as well as secondary industries, such as those related to tourism.

Estuaries are the nurseries of the sea. These areas, where the rivers meet the sea, are some of the most biologically productive ecosystems in the country. It has been estimated that two-thirds of the commercial and sport fish landed in the U.S. are estuarine dependent during portions of their life cycles. Dr. Eugene Odum, Director of the Institute of Ecology at the University of Georgia and a leading authority on salt marshes, has estimated the resource value of the marsh in estuaries (for such things as natural wastewater treatment, food and habitat for fish, and as a buffer from storm and wave energy) at \$82,000 per acre.

Coastal resources have other intrinsic values that are harder to put a dollar figure on such as educational, scientific, recreation, scenic and aesthetic values.

The New Hampshire Coastal Program, in this coastal resource protection policy, has identified five resources of particular concern which are subject to state regulation and management.

Coastal and Estuarine Waters

The tidal waters of the state include the offshore waters to the limits of the territorial sea and the Great Bay and Hampton-Seabrook estuaries and associated tributary rivers. These water resources are the source of the commercial fishing industry on the coast as well as recreational fishing activity. They serve as the basic element for tourism in the coastal area by providing boating and swimming opportunities. They are also important in providing access to ocean-borne shipping through the Port of Portsmouth. Protection of surface waters for fishing and other activities is the responsibility of the Water Supply and Pollution Control Division.

Tidal and Freshwater Wetlands

Adequate protection of this resource is provided by the state Wetlands Board which regulates any activity that would alter the basic functioning of the marsh such as excavation, filling, dredging or construction of any structures. New Hampshire has approximately 7,500 acres of tidal wetlands. The bulk of these marshes lie in the coastal communities of Seabrook, Hampton, Hampton Falls, North Hampton and Rye and were formed along the seacoast in embayments protected from the direct force of the ocean. The remaining tidal marshes are located in coves and shallows along the margins of Great Bay and the complex of tidal streams, rivers and freshwater wetlands which make up this estuarine system. Freshwater wetlands which are now or were formerly connected to tidal waters are protected since they function to contain and filter upland run-off which can affect the tidal waters. Policy guidelines mandate the "maximum degree of protection and preservation of our natural environment" (RSA 483-A:1-b). The New Hampshire Supreme Court, in the case of Sibson vs. State of New Hampshire, validated the state's right to regulate marshland under police powers in order to control private actions to prevent public harm. The Court also addressed the taking issue by stating that no compensation was necessary in this case (115 N.H. 124, 336 A.2d, 239 [1975]). Note that this was a Supreme court decision and therefore it is case law.

Beaches

New Hampshire has 10.2 miles of Atlantic beachfront. All wet sand beach is owned by the state and open to the public for recreation. All significant dry and sand beach is owned by the state (6.4 miles) or local governments, (3.7 miles) and managed as public beach recreation areas. Any alteration or construction activity on beaches are subject to Wetlands Board regulations. Beach renourishment and erosion control are practiced on Hampton Beach.

Sand Dunes

Three discrete sand dune areas remain in the seacoast: the Hampton Beach State Park dunes are state owned and managed; the Seabrook fore-dunes are owned by the town as well as the Seabrook back dunes. All sand dunes in New Hampshire are subject to regulation by the state Wetlands Board. Coastal Program funds were used to have the back dunes appraised and purchased and to develop a management plan for this dune area including an educational/interpretive trail. In 1985 the state Legislature enacted a statute which prohibits any alteration of sand dunes including the removal of vegetation and use of off-highway vehicles. Subsequent to these actions, the town of Seabrook took action to purchase the back dunes with the aid of Coastal Program funds.

Rocky Shores

Along the Atlantic coast are several segments of rocky shore outcroppings. Most are quite narrow, limited to the intertidal zone and then rising sharply to meet the coast road, Route 1-A. Only two rocky outcroppings are large enough to support any construction activity. Great Boars Head in Hampton is a tombolo that is fully developed to the edge of the rocky shore where it drops off to the sea. Odiorne Point is part of the Odiorne State Park which is maintained in its natural state.

Within the Great Bay area, there are many smaller rocky outcroppings at places such as Fox Point, Bloody Point, Adams Point, Welsh Cove, Thomas Point and Durham Point. There are also a few areas of rocky bluffs, such as the upper part of the tidally influenced section of the Bellamy River, and the Piscataqua River along the Portsmouth/Newington line. Most of these areas are as yet undeveloped.

These rocky shores serve as storm protection for the landforms behind them, and are considered high in aesthetic value. The New Hampshire Coastal Program will support and coordinate the efforts of federal, State, and local agencies to protect these valuable resources so as to maintain their function of storm protection for adjacent land forms.

All rocky shores extending from the submerged lands to mean high tide, including the intertidal zone are state owned and any activity on the rocky shore is subject to the permitting authority of the Wetlands Board. All such projects are considered major project and are subject to the strictest development review standards. Furthermore, any subsurface disposal system in such areas requires a Water Supply and Pollution Control Division permit. Because of the lack of soil available to receive this type of waste, it is unlikely (cost prohibitive) that these systems will be located on the rocky shores.

Other than public ownership of coastal and estuarine lands, the following list identifies the key sources of authority for coastal resource protection.

Key State and Federal Authorities

ENFORCEMENT

RSA 483-A (Fill and Dredge in Wetlands; WB)
Chapter Wt 400, Shoreline Structures (Wetlands Board regulations)
Chapter Wt 600, Coastal Wetlands (Wetlands Board regulations)
Clean Water Act (Section 404); Corps of Engineers
RSA 149:4, 8, 8a (Water Pollution and Disposal of Waste; WSPCD)
RSA 149-E:1, 3 (Sewage Disposal System; WSPCD)
RSA 146-A:3, 4, 11-c (Oil Spillage in Public Waters; WSPCD)
RSA 148:16, 22, 23-25, 31, 32 (Protection of Sources of Water and Ice; WSPCD)
RSA 148-B:5-7, 10 (Safe Drinking Water Act; WSPCD)
RSA 147-A:13a, 14 (Waste Management Division, Environmental Services)
RSA 214:1-d (Licenses; F&G)
River and Harbor Act of 1899 (Section 10); Corps of Engineers

ENHANCEMENT

RSA 107:8-A (The Civil Defense Act; Civil Defense)
RSA 125-D:1, 3 (Acid Rain Control Act; Air Resources)
RSA 148-A:1 (Future Supplies of Water for Domestic Use; WSPCD)
RSA 206:10, 15-a, 23, 26 (Fish and Game Commission; F&G)
RSA 212:1, 2, 9, 10, 11, 18, 19, 21, 25, 32 (Propagation of Fish and Game;
F&G)
RSA 217:1 (Shore and Beach Preservation and Development; DOT)
RSA 430:28 (Insects, Pests and Plant Diseases; DOA)

Policy 2

Fish and Wildlife Management

Manage, conserve and, where appropriate, undertake measures to maintain, restore and enhance the fish and wildlife resources of the state.

Explanation

The management of marine fisheries is administered through the laws, regulations and programs of the Fish and Game Department (F&G). Certain regulations governing the management of some species are contained directly in state legislation and it is the responsibility of the Fish and Game Department to enforce these legislated regulations. A Marine Fisheries Division is established within the Department. Policy and program recommendations for shore fisheries are made to the Fish and Game Commission by the Advisory Committee on Shore Fisheries. The Department owns and operates properties used for fish spawning and public access.

Protection of fish, plant and wildlife habitats on submerged lands in wetlands and other habitats (i.e. beaches, dunes, and rocky shores) is an explicit purpose of the authority of the Wetlands Board, as discussed under Policy 1.

Aquacultural activities are controlled by the Fish and Game Department through a license issued by the director of the Department. The license application requires sufficient information to determine the compatibility of the project with existing natural resources and with present or potential uses of the area. Conditions for the license include requiring safeguards to protect established runs of anadromous fish and to guard against release into state waters of any fish that might be diseased. The Fish and Game Department is also responsible for protecting wildlife, both game and nongame species, and for protecting wildlife habitat.

Commercial fishing is managed primarily through the Fish and Game Department. The state promotes the commercial fishing industry through ownership of commercial fish piers, which are managed by the Bureau of Marine Services, Department of Resources and Economic Development.

The coastal and estuarine areas are habitat for many species. The Great Bay estuarine system provides a finely varied habitat for many different species of vegetation. These include marine algae, seaweeds, saltgrasses, and freshwater marsh grasses. This vegetation is the driving force behind estuarine productivity. The various plants and grasses provide oxygen in the water, act as stabilizers for the estuary bottom, and provide food and habitat for many different species of fish, shellfish, birds and other wildlife.

Marine life in Great Bay has a richly varied environment including saltmarshes, mudflats, sandy beaches, and rocky shorelines. The most prevalent habitat in the estuary consists of soft substrata intertidal area - those between high and low tides.

The estuary serves as an important breeding ground for many finfish. A two year (1980-82), comprehensive inventory of the natural resources of Great Bay, conducted by the Fish and Game Department, identified 52 species of finfish - some resident, some anadromous, and some migrant. This same resource inventory sighted over 90,000 birds representing 71 different species during the two year period. The saltmarsh provides prime migratory waterfowl habitat.

Key State and Federal Authorities

ENFORCEMENT

RSA 206:10, 15-a, 20, 23, 26 (Fish and Game Commission; F&G)

RSA 483-A:1, 3, 5, 6, 8 (Fill and Dredge in Wetlands; WB)

Chapter Wt 600 Coastal Wetlands (Wetlands Board regulations)

RSA 211:1, 8, 8a, 17b, 17c, 18, 19a, 29, 30, 31, 37, 46a, 48, 48a, 49, 53, 55, 55a, 61, 62c, 62e, 63a, 65, 66, 71-75 (Fish, Shellfish, Lobster and Crabs; F&G)

RSA 214:1-a, 1-d (Licenses, F&G)

Clean Water Act (Section 404); Corps of Engineers

River and Harbor Act of 1899 (Section 10); Corps of Engineers

ENHANCEMENT

RSA 125-D:1, 3 (Acid Rain Control Act; Air Resources)

RSA 207:54 (General Provisions as to Fish and Game; F&G)

RSA 212:1, 2, 10, 11, 18, 19, 21, 25, 32 (Propagation of Fish and Game; F&G)

RSA 213:I, V, VII (Atlantic Marine Fisheries; F&G)

RSA 430:28 (Insects, Pests and Plant Diseases, DOA)

RSA 211:18b, 18c, 27, 46a, 49 (Fish, Shellfish, Lobster, and Crabs; F&G)

Policy 3

Offshore/Onshore Sand and Gravel Removal

Regulate the mining of sand and gravel resources in offshore and onshore locations so as to ensure protection of submerged lands, and marine and estuarine life. Ensure adherence to minimum standards for restoring natural resources impacted from onshore sand and gravel removal overations.

Explanation

Any excavation involving the removal of sand and gravel from submerged lands (below mean high tide to 3 miles offshore) is subject to a state Wetlands Board permit. The removal of onshore sand and gravel, lying in or adjacent to any waters of the state, also comes under the jurisdiction of the Wetlands Board while the removal of sand from sand dunes in the state is not allowed. Furthermore, the commercial excavations of earth from onshore areas must receive a permit from the local town, city or county. Said permit sets the standards for operation of sand and gravel removal as to aquifer protection and restoration requirements.

The Water Supply and Pollution Control Division, to protect the quality of surface and ground water, reviews and accepts, where sufficient, local excavation permit applications under RSA 155-E as meeting the state RSA 149:8-a, Alteration of Terrain, permit requirements. The state provides a joint application procedure. Should an excavation project be proposed in the coast, coastal funds could be used to assess the impact of such proposed activities on coastal resources.

Key State Authorities

ENFORCEMENT

RSA 483-A:1, 3, 5, 6, 8 (Fill and Dredge in Wetlands; WB)
Chapter Wt 600, Coastal Wetlands (Wetlands Board regulations)
RSA 149:4, 8, (Water Pollution and Disposal of Waste; WSPCD)
River and Harbor Act (Section 10); Corp of Engineers
Clean Water Act (Section 404); Corps of Engineers

ENHANCEMENT

RSA 155-E:2, 4 (Local Regulation Excavations; WSPCD, WB)

Policy 4

Oil Spill Prevention/ Cleanup

Undertake oil spill prevention measures, safe oil handling procedures and, when necessary, expedite the cleanup of oil spillage that will contaminate public waters.

Institute legal action to collect damages from liable parties in accordance with state law.

Explanation

In New Hampshire, the Water Supply and Pollution Control Division (WSPCD) has primary state responsibility in prevention, management and clean-up of oil spills in state waters. WSPCD regulates oil handling facilities and vessels and oil spill cleanup, including terminal operations, transfer procedures, general safety provisions, oil spill reporting, containment and cleanup, and terminal licensing. At the Federal level the U.S. Coast Guard enforces regulations for oil transfer facilities and vessels and pollution prevention in the coastal zone of the United States. As of 1979, WSPCD has licensed oil handlers and collects fees which go to a statewide oil pollution control fund. This fund pays for a state oil spill control program. This program was developed using Coastal Energy Impact Funds from the Office of State Planning, as well as an oil spill contingency program for Portsmouth Harbor that was incorporated into the statewide plan. The assessment of damages to fish and other aquatic life or wildlife and/or their habitat is the responsibility of the Department of Fish and Game (F&G). The State Attorney General shall institute such legal action as deemed necessary to recover these damages as well as the cost of containment, cleanup, and disposal reported by WSPCD. Coastal Program funds were also used to develop an environmental inventory of the Great Bay for the purpose of establishing baseline data for impact assessment of future fuel and chemical product spills.

The U.S. Coast Guard, under the Clean Water Act, is responsible for supervising the cleanup of any oil spill in coastal waters. It oversees Maine and New Hampshire operations when a spill occurs in Portsmouth harbor.

Key State and Federal Authorities

ENFORCEMENT

RSA 146-A:3, 4, 11-c (Oil Spillage in Public Waters; WSPCD)

RSA 211:71-74 (Fish, Shellfish, Lobster and Crabs; F&G)

Clean Water Act (Section 311); U.S. Coast Guard

ENHANCEMENT

RSA 107:8-a (the Civil Defense Act; Civil Defense)

Policy 5

Rare and Endangered Species

Encourage investigations of the distribution, habitat needs, and limiting factors of rare and endangered animal species and undertake conservation programs to ensure their continued perpetuation.

Explanation

The saltmarshes, tidal waters and related land areas provide habitat for certain animal and plant species that are threatened or endangered with extinction. The New Hampshire Endangered Species Program was established as a cooperative project of the N.H. Fish and Game Department and the Audubon Society of New Hampshire in 1980, to carry out the provision of the 1979 N.H. Endangered Species Conservation Act. Several animals which frequent the coastal environment have been listed by the state as threatened, including: Common Tern, Arctic Tern and Roseate Tern. Coastal program funds have been used to study and prepare management strategies for the Common Tern. Habitats of endangered species are included in the Natural Heritage Inventory administered by the Department of Resources and Economic Development.

The Federal Threatened and Endangered Species Act requires federal agencies such as the Federal Highway Administration and the Army Corp of Engineers to certify that their projects and permits will have no detrimental effect on federally listed species. The U.S. Fish and Wildlife Service has the overall responsibility for implementing the Endangered Species Act, including the listing of species, identification of habitat, management activities, and enforcement. Currently there are no designated habitat sites on the federal list. Two species, the Piping Plover and the American Bald Eagle are visitors to the coast and could, in the future, effect these projects and permits. Piping Plovers have historically nested in the seacoast area, and there has been evidence of attempted nesting as recently as 1984. Great Bay provides the most important wintering area in the State for Bald Eagles. The number of Eagles using the area in the winter have increased in recent years.

The National Marine Fisheries Service tracks the movement of threatened and endangered marine species and regulates dredging, fishing, and other operations which may impact these species.

Key State and Federal Authorities

ENFORCEMENT

Chapter 195 - Laws of 1986 (Natural Heritage Program; DRED)

RSA 212-A (Endangered Species Conservation Act; F&G)

River and Harbor Act of 1899 (Section 10)

Clean Water Act (Section 404)

ENHANCEMENT

Endangered Species Act, Interior Department

Policy 6

Unique Natural Areas

Identify, designate, and preserve unique and rare plant and animal species and geologic formations which constitute the natural heritage of the state. Encourage measures, including acquisition strategies, to ensure their protection.

Explanation

There are natural areas in the coastal region which have a uniqueness in the state or region which make them deserving of special management attention by the Coastal Program. One example is the back dunes area in Seabrook which is a unique land form in New Hampshire and harbors a diversity of rare plant species. Several small swamps containing Atlantic White Cedar exist in Portsmouth and Rye. Crommet Creek in Durham is a unique and pristine estuarine creek.

In accordance with 1986 legislation, the Department of Resources and Economic Development (DRED) is required to utilize the Nature Conservancy's inventory of unique and natural areas to designate those areas which are to be preserved under the state Natural Heritage Program. DRED shall be assisted in administering the program by a committee composed of representatives of: the Nature Conservancy, the Society for the Protection of New Hampshire Forests, the Audubon Society of New Hampshire, the New Hampshire Association of Conservation Commissions, the Department of Fish and Game, the Office of State Planning, and DRED. The goal of this program is to carryout the policy stated above. In doing so, the program also affords the state another avenue of balancing land use and resource protection in the coastal zone.

DRED is also charged with the implementation of the New Hampshire Native Plant Protection Act of 1987. The department shall research the scientific data on plant species occurring in the state and adopt a list of species which are threatened by loss, drastic modification, severe curtailment of their habitats, over collection, disease, pollution, or predation. Further, DRED shall establish programs for the protection of the listed species.

The New Hampshire Natural Areas Council is an association of state and private agencies concerned with establishing protection priorities for natural areas in the state, coordinating protection efforts, and promoting research and public awareness and understanding.

The Trust for New Hampshire Lands has undertaken a statewide program of acquisitions to expand public ownership of land through fee simple or easement acquisition. The Trust is a non-profit organization which has proposed joint

funding (state and private) of the \$50 million project. Many of the acquisitions to be made will be unique natural areas. The land surrounding Great Bay is on the Trust's inventory of proposed priority protection areas.

All the organizations provide valuable input and data to the regulatory processes by testifying and presenting evidence for consideration in regulatory cases.

Key State Authorities

ENFORCEMENT

RSA 217-A (N.H. Native Plant Protection Act of 1987; DRED)

Chapter 195 - Laws of 1986 (Natural Heritage Program; DRED)

Chapter Wt 400, Shoreline Structures (Wetlands Board regulations)

Chapter Wt 600, Coastal Wetlands (Wetlands Board regulations)

ENHANCEMENT

New Hampshire Natural Areas Program - a consortium of State agencies, the University and conservation organizations involved in the identification and protection of unique natural areas.

TOPIC II

RECREATION AND PUBLIC ACCESS

Policy 7

Recreation Facilities

Provide a wide range of outdoor recreational opportunities including public access in the seacoast through the maintenance and improvement of the existing public facilities and the acquisition and development of new recreational areas and public access.

Explanation

New Hampshire provides extensive public access to its Atlantic shoreline with approximately 75 percent of the immediate shoreline under public ownership. The public lands (see Map 3-1 and Figure 3-1) include approximately:

- 28 beaches, parks and recreation areas along the coast that are owned and managed by either the State or by one of the coastal communities;
- 54 public rights-of-ways from Route 1A to the Atlantic Ocean;
- eight sites that provide public and/or commercial access to the water; and
- five resource protection areas that also provide passive recreation opportunities (bird watching, nature walks, etc.).

In the Great Bay estuarine system, the situation is very different. The existence of extensive mud flats have, in the past, acted to dampen the demand for water access and shoreline recreational opportunities. As a result, the extent of public land holdings is much less than on the Atlantic shoreline. Looking at the shoreline of Great and Little Bays, approximately 21 percent is federal, state or local land, and two thirds of this is Pease Air Force Base property that is not open to the public. Looking at the entire estuarine system, there are 23 different areas that provide access to or enjoyment of the shoreline (see Map 3-2 and Figure 3-2). This apparent abundance of access areas, however, is deceiving. For example, there are 11 sites that provide some type of boat access; of these, only four offer relative ease of access for a boat and trailer, and only Hilton Park has parking for more than a few cars with trailers. In addition, general public use for passive recreation is encouraged at only five of the 23 areas and only three have any kind of support facilities (picnic tables, barbecue pits, trails, toilets, etc.)

It is the responsibility of the State to preserve and develop unusual scenic, scientific and recreational areas and facilities for public recreational, educational, scientific and related uses. Further, it is the State's

responsibility to provide adequate public access to and enjoyment of the coastal and estuarine environments. Also, coastal recreation is an important part of the State's tourism industry. What constitutes adequate access and recreational opportunities is determined by several factors, including the level of demand, and carrying capacity of the coastal environment, and the availability/suitability of land to provide a range of opportunities. This responsibility is shared by the Department of Resources and Economic Development (DRED), the Port Authority, Fish and Game, the New Hampshire Department of Transportation (NHDOT) and the Office of State Planning (OSP). The approach of the Coastal Program will be to support and coordinate the efforts of these agencies in the provision of coastal recreation opportunities. In addition the Coastal Program will support local efforts to provide or improve the management of recreation areas.

For the Atlantic shoreline, the emphasis of the New Hampshire Coastal Program has been and will continue to be on improved management of the existing public lands; in the Great Bay estuary, the emphasis will be on determining, and working to provide, the appropriate level of access and recreational opportunities. To accomplish these things, Coastal Program funds will be available to support the work of DRED, Fish and Game, the Port Authority, Department of Transportation and the coastal/estuarine communities in their efforts to provide recreation and coastal access improvement. For example, Coastal Program funds have been used by DRED to develop a management plan for Odiorne Point State Park. Similarly, funding will be provided to improve public access and recreation opportunities in the estuary. This may include acquisition (fee simple or easement) of additional public access lands.

In addition to this direct financial assistance, Coastal Program staff time will be devoted specifically to looking at public access to Great Bay. This work has already begun under the auspices of the National Estuarine Research Reserve Program. These projects will be coordinated with other state agencies, the Great Bay communities and various sportsmen and conservation groups that are active in the estuary, such as the Trust for New Hampshire Lands (see Policy 6). The Coastal Program will encourage state and local permitting agencies to negotiate, through their administrative processes, to obtain or improve public access as mitigation for a proposed project's impact on some aspect of the coastal zone.

Key State Authorities

ENFORCEMENT

RSA 216-A:1-3 (Forestry and Recreation; DRED)

RSA 4:29 (Powers of the Governor and Council - Acquisition and Disposal of Real Estate; G&C)

RSA 271-A:2-4, 13 (New Hampshire State Port Authority; Port Authority)

Rules and Regulations Pertaining to Harbors and Tidal Waters of the State of New Hampshire (Port Authority regulations)

ENHANCEMENT

RSA 4:12-e (Powers of the Governor and Council in Certain Cases; OSP)

RSA 9-A:1-4 (State Development Plan; OSP)

RSA 12-A:1-a, 7-a, 17, 18 (Department of Resources and Economic Development; DRED)

RSA 212:1, 2, 10, 11, 18, 19, 21, 25, 32 (Propagation of Fish and Game; F&G)

RSA 219:1, 2, 7 (Public Forest Lands; DRED)

RSA 220:1, 5, 7 (Forest Resources Planning Act; DRED)

RSA 230:63, 64, 66, 68, 69, 70, 71 (Layout of Highways to Public Waters; G&C)

RSA 230:72, 73 (Rights-Of-Way to Recreational Waters; ROW Board)

Land and Water Conservation Fund Act of 1965, As amended (DOI)

MAP 3-1 PUBLIC LANDS

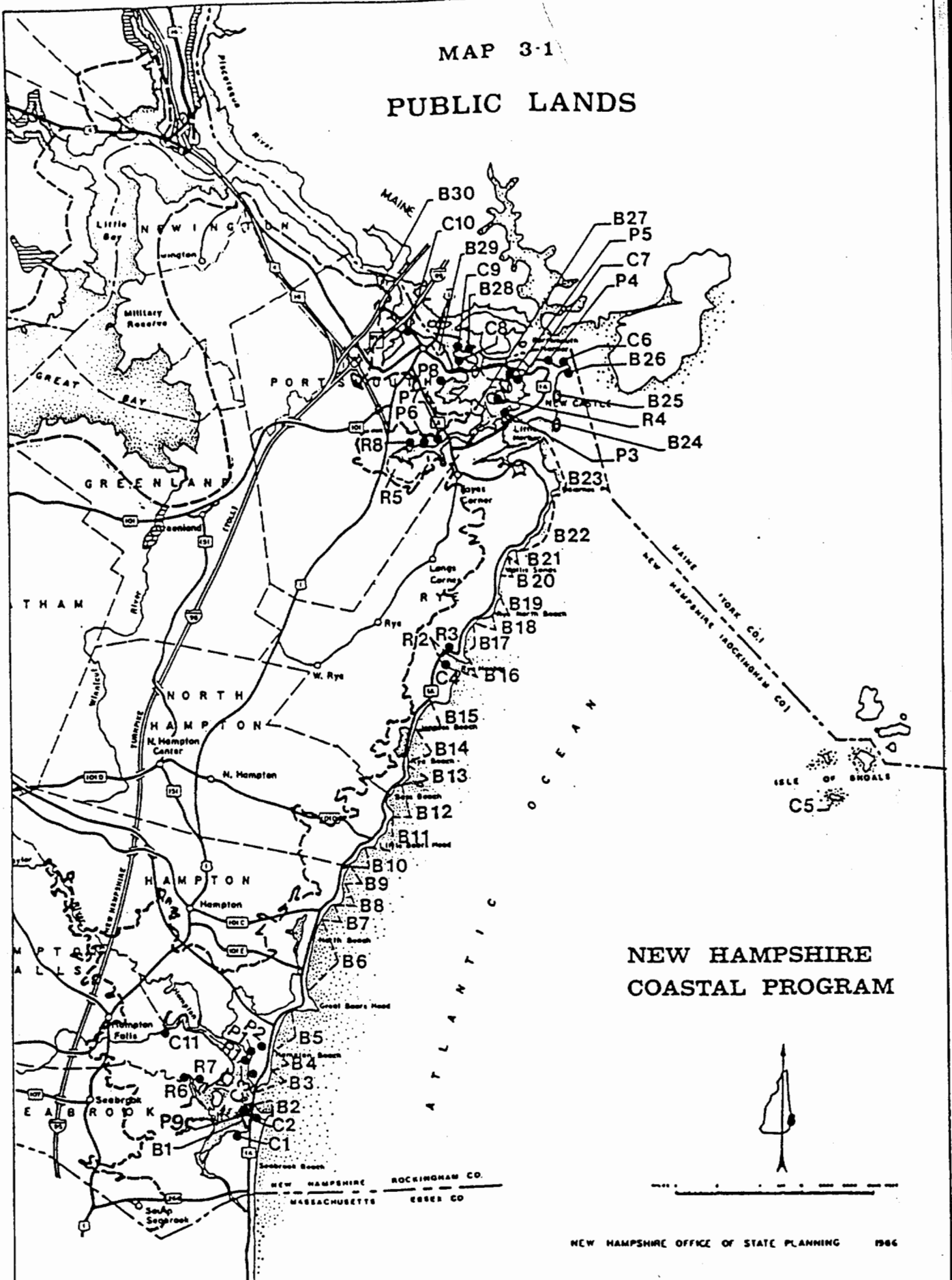


FIGURE 3-1

PUBLIC LANDS
ATLANTIC SHORELINE

Beaches, Parks, Recreation Areas

- B 1 Seabrook Back Beach (S-NHDOT)
- B 2 Beckman's Point Beach Area (S-NHDOT)
- B 3 Hampton Beach State Park (S-DRED)*
- B 4 Cottage Beach (L-Hampton)
- B 5 Hampton Main Beach (S-DRED)*
- B 6 Hampton North Beach (S-DRED)*
- B 7 Stimson Park Beach Area (L-Hampton)
- B 8 Plaice Cove Beach Area (L-Hampton)
- B 9 Plaice Cove Beach (L-Hampton)
- B 10 North Hampton State Beach (Pope's Beach) (S-DRED)
- B 11 Little Boar's Head (S)
- B 12 Fox Hill Beach Area (S)
- B 13 Bass Beach and Rye Ledges (S)
- B 14 Sawyer's (Rye) Beach (L-Rye)
- B 15 Jenness State Beach (S-DRED)
- B 16 Rye Harbor State Park (S-DRED)
- B 17 Foss Beach (L-Rye/S-DRED)
- B 18 Rye North Beach (S)
- B 19 Concord Point Beach Area (S)
- B 20 Wallis Sands Beach Area (S)
- B 21 Wallis Sands Beach State Park (S-DRED)
- B 22 Rocky Beach-Pulpit Rock (S)
- B 23 Odiorne Point State Park (S-DRED)
- B 24 Fort Stark Historic Area (S-DRED)
- B 25 Great Island Common (L-New Castle)
- B 26 Fort Constitution Historic Site (S-DRED)
- B 27 Wentworth-Coolidge Mansion Historic Site (S-DRED)
- B 28 Pierce's and Four Tree Island (L-Portsmouth)
- B 29 Prescott Park (L-Portsmouth)
- B 30 Playground (L-Portsmouth)

L Local Ownership
S State Ownership
F Federal Ownership

NHDOT New Hampshire Department of Transportation

DRED Department of Resources and Economic Development

NHFG New Hampshire Department of Fish and Game

* Hampton Beach State Park is a multi-site facility under DRED management.

Fishing, Boating, Commerce

- C 1 Seabrook Town Dock (L-Seabrook)
- C 2 Public Service Co. Service Dock (S-NHDOT)
- C 3 Hampton State Fish Pier (S-DRED)*
- C 4 Rye Harbor State Fish Pier (S-DRED)
- C 5 Coast Guard Station, White Island, Rye (F-Coast Guard)
- C 6 Coast Guard Station, New Castle (F-Coast Guard)
- C 7 New Castle Town Landing (L-New Castle)
- C 8 Pierce's Island Boat Ramp (L-Portsmouth)
- C 9 Portsmouth State Fish Pier (S-DRED)
- C 10 State Port Authority Cargo Terminal (S-Port Authority)
- C 11 Hampton Falls Boat Ramp (L-Hampton Falls)

Resource Protection Areas

- R 1 Wetlands Area (L-Hampton)
- R 2 Rye Harbor State Park (S-DRED)
- R 3 Wetlands Area (L-Rye Conservation Commission)
- R 4 Leach's and Clampit Islands, Wentworth-Coolidge Mansion Property (S-DRED)
- R 5 State Urban Forestry Center (S-DRED)
- R 6 Seabrook Saltmarshes (S-NHFG)
- R 7 Hampton Falls Saltmarshes (S-NHFG)
- R 8 Jones Avenue Recreation Area (L-Portsmouth)

Other Public Lands

- P 1 State Parking Lot (S-DRED)*
- P 2 State Parking Lot (S-DRED)*
- P 3 Vacant Land (L-New Castle)
- P 4 Vacant Land (L-New Castle)
- P 5 Cemetery (L-New Castle)
- P 6 High School (L-Portsmouth)
- P 7 Vacant Land (L-Portsmouth)
- P 8 Elementary School (L-Portsmouth)
- P 9 Parking Lot (S-NHDOT)(L-Seabrook)



FIGURE
3-2
PUBLIC LANDS - GREAT BAY ESTUARY

B 31 Hilton Parks (S - NHDOT)
B 32 Shipyard Landing (L - Durham)
B 33 Wastewater Treatment Plant Park (L - Newmarket)
B 34 Carter's Rocks (L - Newington)
B 35 Fox Point (L - Newington)
B 36 Scammel Bridge Wayside Area (S - NHDOT)
B 37 Bloody Point (L - Newington)

R 6 Bellamy River Access (S - NH F&G)
R 7 Adams Point (S - NH F&G)
R 8 Lamprey River Access (S - NH F&G)
R 9 Great Bay Access (S - NH F&G)
R 10 Greenland Conservation Land (L - Greenland)
R 11 Stratham Conservation Land (L - Stratham)
R 12 Winnicut River Dam (S - NH F&G)

C 11 Cedar Point Boat Access (L - Durham)
C 12 Jackson's Landing (L - Durham)
C 13 Adams Point Boat Ramp (S - NH F&G)
C 14 Newmarket Town Landing (L - Newmarket)
C 15 Newfields Town Landing (L - Newfields)
C 16 Greenland Town Landing (S - Greenland)
C 17 Hilton Park Boat Ramp (S - NHDOT)
C 18 Chapman's Landing (S - NH F&G)

P 9 Durham Land (L - Durham)
P 10 Stratham Depot Landing (L - Greenland)
P 11 Pease Air Force Base (F - Newington/Portsmouth)
P 12 Durham Wastewater Treatment Plan (L - Durham)

L Local Government
S State Government
F Federal Government
NHDOT New Hampshire Department of Transportation
DRED Department of Resources and Economic Development
NH F&G New Hampshire Department of Fish and Game

TOPIC III

MANAGING COASTAL DEVELOPMENT

Policy 8

Rural Quality of Great Bay

Preserve the rural character and scenic beauty of the Great Bay estuary by limiting public investment in infrastructure within the Coastal Zone in order to limit development to a mixture of low and moderate density.

Explanation

The Great Bay estuarine system is an important, relatively undeveloped natural resource of coastal New Hampshire. Its undeveloped nature is due in part to the shallowness of the bay which does not lend itself to extensive recreational use. This lack of development is also due to the land ownership on the periphery of Great Bay, which is primarily in parcels larger than 10 acres, and the current local zoning ordinances. These local ordinances support the State's policy of low (4 or more acres/unit) and moderate (1 to 3 acres/unit) density development (see Map 3-3). The resulting rural character and scenic beauty of the Bay, and its important contribution to the coastal environment, make development of the area a subject of state concern.

The policy will be carried out through the following actions:





- limit publicly funded wastewater treatment facilities and extensions to solve specific pollution abatement problems or to serve existing development in an area;
- prohibit installation of subsurface wastewater disposal systems in the 50-year floodplain;
- Limit public investments in coastal highway projects to maintenance of existing coastal routes, bridge replacement projects, the planned upgrading/replacement of Route 4 and improved public access to coastal waters; and
- regulate dredge, fill and construction activities in and adjacent to tidal wetlands to minimize their impact on these wetlands

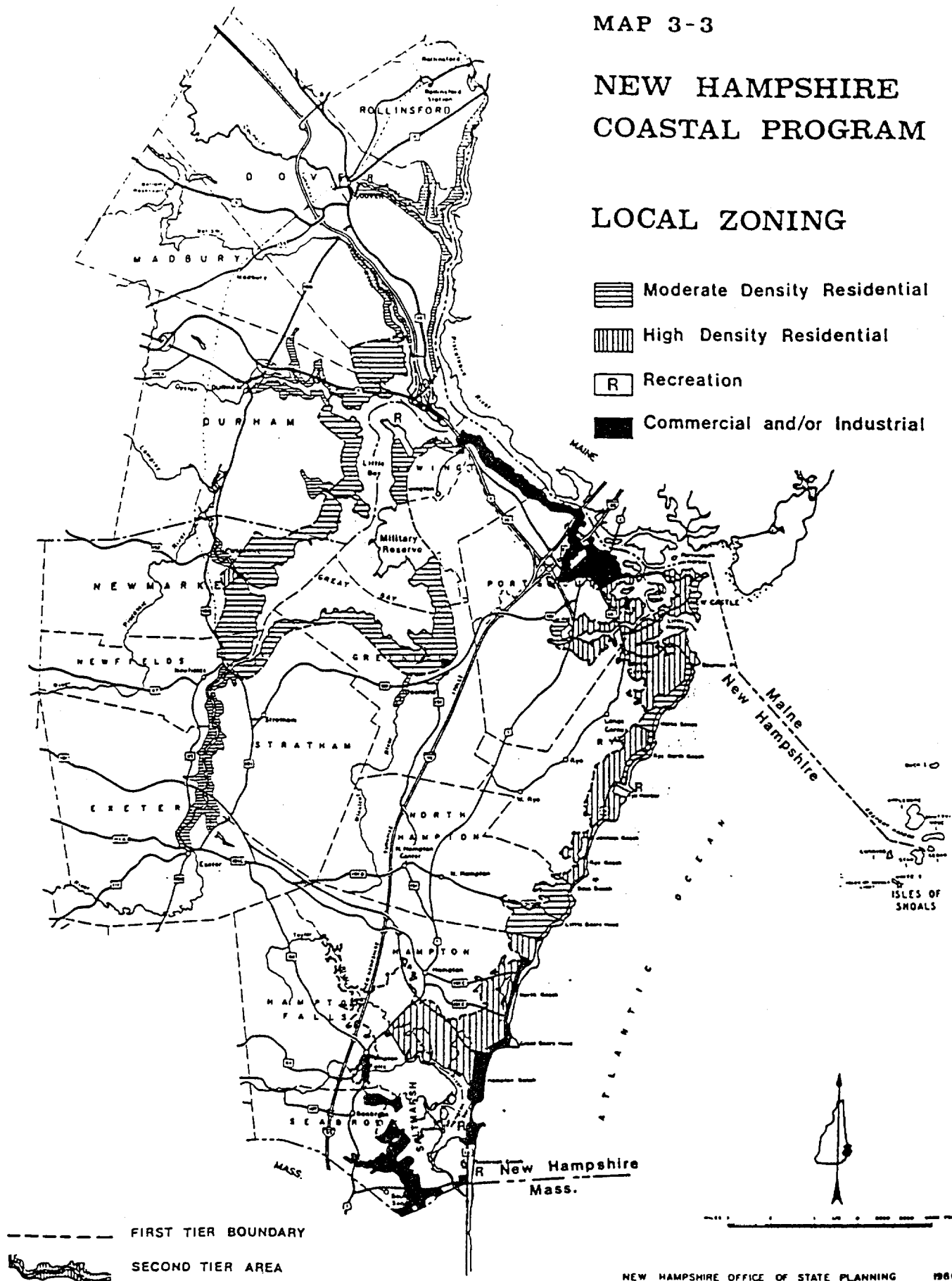
In general the management program will ensure that state agency capital investment, regulatory and management decisions in the Great Bay estuary are consistent with other coastal policies and that they recognize and preserve the rural character and scenic beauty of the area.

MAP 3-3

NEW HAMPSHIRE COASTAL PROGRAM

LOCAL ZONING

-  Moderate Density Residential
-  High Density Residential
-  Recreation
-  Commercial and/or Industrial



The Governor has directed the Council on Resources and Development (CORD) and the affected state agencies to adopt policies regarding the preservation of the Great Bay area and to implement these policies (Executive Order 83- 8). This Environmental Impact Statement embodies the policies and procedures to be adopted by CORD. Furthermore, CORD will recognize all Memoranda of Agreement executed by the lead agency (OSP) and will resolve any disagreements between agencies arising from actions in conflict with the memoranda.

The Water Supply and Pollution Control Division of Environmental Services (WSPCD) has primary responsibility for regulating wastewater treatment systems, water supply systems, and subsurface disposal facilities. The WSPCD regulates construction and operation of any such public facilities as well as new hookups to such systems.

The WSPCD allows publicly funded sewer line and facility expansions only to solve pollution problems in developed areas, and prohibits public expenditures to serve new development (see Memorandum of Agreement in Appendix F). Therefore, it is WSPCD policy to use existing wastewater treatment facilities to serve developed areas only. State certification of capacity in pipes and plant hookups, prohibits overloading of the system. (WS 222.16) Furthermore, WSPCD and EPA policies prohibit hookups from future construction in wetlands and floodplain areas.

Of the 10 municipalities which are part of the Great Bay estuarine system, 7 have sewer systems (see Map 3-4). Three of these systems are at or near their capacity and would require substantial investment to increase that capacity. Figure 3-3 lists the municipalities with sewer systems and estimates the maximum population and housing growth which may occur around each system without regard to other factors.

Enforceable state policies regulate sewer systems and subsurface sewage disposal systems based on the state's responsibility for environmental protection. Under this umbrella, economic reality dictates that high density development will occur around sewer systems. Furthermore, local governments recognize the need to maximize the utility of public facilities. This is done by basing their zoning in large part on the availability of public facilities, as evidenced by comparing Maps 3-3 and 3-4. For the most part, high density development will be excluded from the coastal zone around Great Bay as a result of the state's policies on sewers and roads (see below) and the economics of development.

Other controls affecting development around Great Bay are held at the local level. Several towns have wetlands protection ordinances and/or shoreline setbacks which restrict development in wetlands or along the shore. They include:

Durham - Two overlay districts:

1. The Shoreland Conservation District includes all land within 50 feet of the mean high water mark of the Bay and any year-round natural flowing streams. This zone prohibits structures, cutting of trees over ten inches in diameter and destruction of the aesthetic qualities of the shore.

2. The Wetlands Protection District, based on soil types, prohibits structures and other related building activities within 50 feet of poorly drained and 75 feet of very poorly drained soils.

Newmarket:

1. Shoreland Conservation zone prohibits development and cutting of trees over ten inches in diameter within 100 feet of all tidal waters.
2. The wetlands protection ordinance prohibits development on poorly and very poorly drained soils.

Newfields:

1. Has a shoreland protection district within 100 to 150 feet of the high water level of shorelines, brooks and streams.

Stratham:

1. Shoreland Protection District prohibits development of:
 - a) All land areas within 150 feet horizontal distance of upland extent of any tidal marsh adjacent to Squamscott River and Great Bay; and
 - b) Areas of land within 100 feet horizontal distance of seasonal high water level of: Jewell Hill Brook, Mill Brook; Winnicut River, Dearborn Brook, and Parkman Brook.
2. Wetlands Protection Ordinance prohibits development up to five feet above mean high water. In addition, no cutting of more than 50 percent of live trees within a 50 feet border zone of tidal marshes is allowed.

In addition, public ownership of some lands (Map 3-2) also precludes development.

The state does not allow privately owned and operated treatment facilities except when regulated by the Public Utilities Commission. Private funds could be used to pay for sewer lines and the expansion of treatment facilities. However, all such investments must be publicly accepted, owned, and operated, once built.

Management of the state's water supplies is the responsibility of both the WSPCD and the Water Resources Council. The state does not, as a matter of course, provide funds for municipal or private water supply systems. The primary interest of WSPCD is the protection of water quality and water supply sources. With that regard, the WSPCD promulgated Design Standards for Small Public Water Supply Systems (Ws 310). Even though the per unit cost of a private water system will decrease as the density increases, that cost is

still higher than it would be if there were no State controls. In this light, the State's rules further decrease the attractiveness of high density development. Although most areas along the Atlantic coast are served by public water supply systems, private property around Great Bay is served primarily by private residential wells.

Further state control over public water supplies is exerted by the Water Resources Board (WRB). WRB is responsible for construction, maintenance and operation of dams, reservoirs and other projects for distribution and utilization of surface waters. It is authorized to conduct studies of surface and groundwater conditions and supplies in the state and is charged with coordinating efforts towards solving the water supply problems of the seacoast.

It is the responsibility of the Department of Transportation (DOT) to plan, program, and implement all highway projects involving state and federal funds. The DOT prepares a State Highway Improvement Plan on an annual basis for federal-aid highway projects. A Governor's advisory commission on highways has prepared a ten year plan which subsequently was adopted by the Governor and Council. A review of these plans indicates that there are no planned new state roads in or near the Atlantic coastal area or Great Bay except for the proposed upgrading/replacement of Route 4. This action will probably pull the current development pressure further north, away from the Coastal Zone.

The ten year highway plan sets out five criteria to be used to establish project benchmarks for the next ten years. They are:

- 1) that the existing road systems should be fully used;
- 2) that extensive use be made of short bypasses;
- 3) that existing roads be reconstructed and improved;
- 4) that highway systems that are already partially complete be finished; and
- 5) that access to communities be improved while maintaining quality of life and heritage.

These criteria reinforce the policies of the Coastal Program.

The Coastal Program relies on the Intergovernmental Review Process as utilized by DOT in its coordination of federal-aid highway projects. All federal-aid projects are reviewed and commented on by the appropriate state agencies. These review procedures constitute the state's process for considering the social, economic, and environmental effects in processing federal-aid highway projects.

Any major development project also requires review by the state traffic engineers for its impact on traffic flow. Given that the state will not be investing in new roads around the Great Bay, the cost to private concerns for

road systems necessary for large, high density development is prohibitive. In addition, DOT issues state driveway access permits for any access onto a state highway. The state regulates this access based on safety standards and thereby exerts some control over development along existing state roads.

The Department is also responsible for all state bridges. Any bridge construction or improvement also requires a Wetlands Board permit.

Key State and Federal Authorities

ENFORCEMENT

Memorandum of Agreement, Department of Transportation

Memorandum of Agreement, Water Supply and Pollution Control Division

RSA 483-A:1, 3, 5, 6, 8 (Fill and Dredge in Wetlands; WB)

Chapter Wt 600, Coastal Wetlands (Wetlands Board regulations)

RSA 162-C:1, 2 (Council on Resources and Development, OSP)

RSA 149:4, 8, 8a (Water Pollution and Disposal of Wastes; WSPCD)

RSA 149-E:1, 3 (Sewage Disposal Systems; WSPCD)

RSA 230: 46, 47, 48, 63 (State Highway; DOT)

Part Ws 310, .01, .05-.09, .11-.16 (Design Standards for Small Public Water Systems; WSPCD rules)

Part RES-F 304 (Timber Harvesting Rules; DRED regulations)

ENHANCEMENT

Governor's Ten Year Highway Plan

RSA 9-A:1-4 (State Development Plan; OSP)

RSA 230:64, 66, 68, 69, 72, 73, 75, 76 (State Highway; DOT)

Executive Order 83-8

Executive Orders 11988 and 11990

EPA Sewer Extension Policy - Construction Grant Regulations

Memorandum of Agreement, Office of State Planning, Department of Defense
(Pease Air Force Base)

MAP 3-4

NEW HAMPSHIRE COASTAL PROGRAM

GREAT BAY EXISTING SEWER SYSTEMS

■ Treatment Facility

▨ Sewered Area

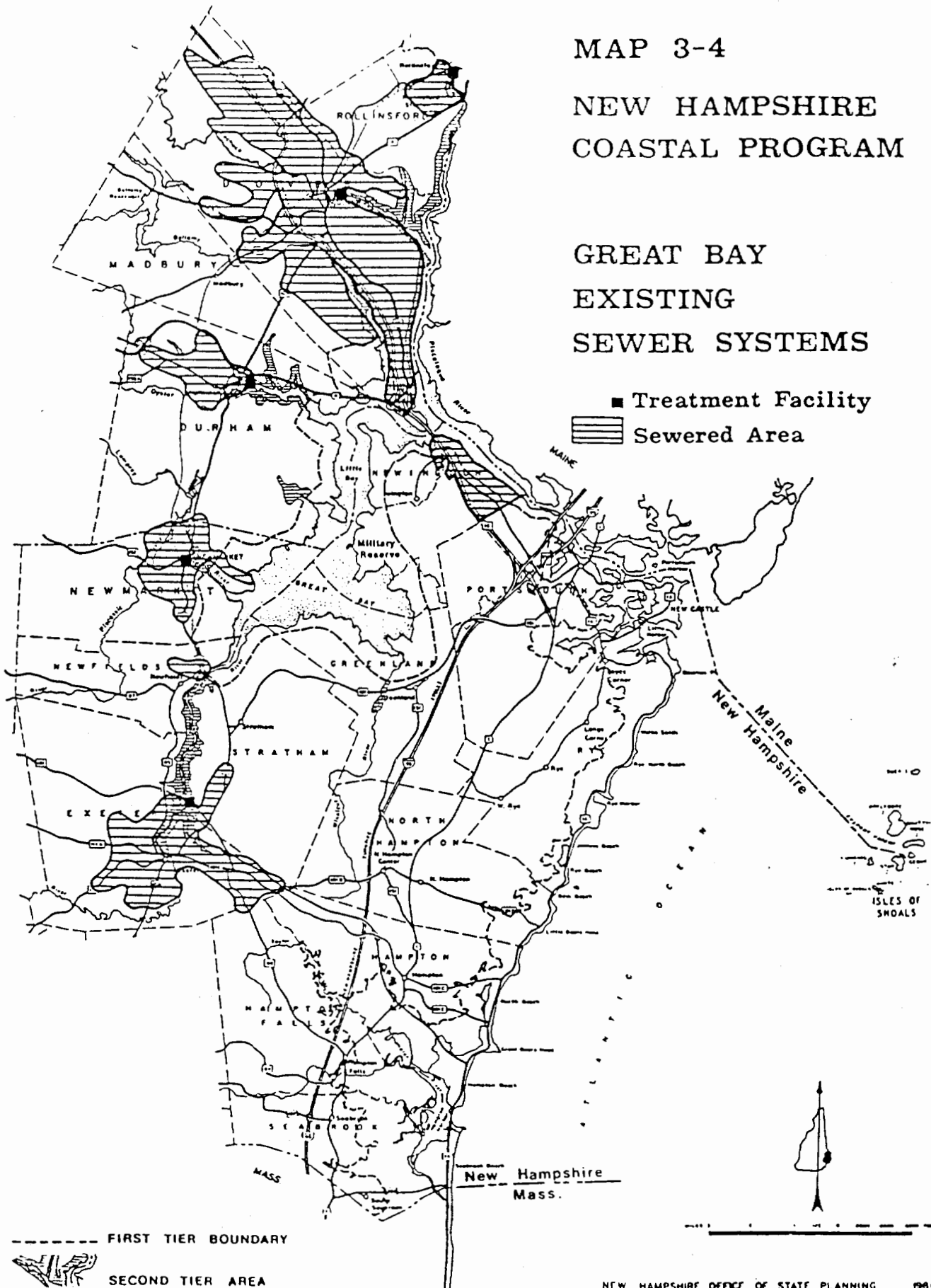


FIGURE
3-3
SEWER SYSTEMS - GREAT BAY ESTUARY

	Design Flow (MGD)	Available Capacity (%)	Capacity (MGD)	Pop. Increase Est. Max. *	Population Current Yr. 2000 OSP Est. **	
Newington	.3	40	.12	1200	800	1010
Newmarket	.85	38	.32	3230	5280	6890
Newfields	.12	37	.043	430	920	1190
Durham	2.5	30	.75	7500	11370	13240
Rollingsford	.15	6	.009	90	2590	3180
Dover	4.4	0	0	0	24440	29340
Exeter	2.6	0	0	0	12390	16930

12450

÷ 2 persons/household

6225 housing units *

* This figure is for illustrative purposes only. It is based on the use of 100 gallons/day/person and does not reflect any other factors such as; available land, zoning, real population growth, or current use trends. For example, most of Newington's current flow is from industrial and commercial users. Very little is from residences. Furthermore, Newington's current population is 800 and a 1200 increase (120%) is not expected in this decade.

** OSP's population estimates for the year 2000 are based on a demographic/economic model which was developed to provide projections for a southeast New Hampshire water supply study. The figures reflect an estimated total population, not just that which is served by sewer systems.

Policy 9

Floodplain Protection

Reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to preserve the natural and beneficial value of floodplains, through the implementation of the National Flood Insurance Program and applicable state laws and regulations, and local building codes and zoning ordinances.

Explanation

The Seacoast is subject to periodic flooding as a result of coastal storms. Low-lying areas adjacent to waterways provide temporary water storage during flood periods, thus serving as natural flood control. In addition to their function in absorbing and dissipating the energy of floodwaters, floodplains also provide recharge of groundwater supplies in certain areas, and act as sediment and nutrient traps to provide continual replenishment of fertile soils for agriculture.

The Coastal Program will implement this policy through the following actions:

- maintain the natural ability of tidal and freshwater wetland flood hazard areas to absorb wave and storm energy and silt and to act as flood water storage areas and buffers for protecting uplands;
- prohibit construction of on-site waste disposal systems within the 50-year frequency flood limit;
- prohibit hookup to public wastewater disposal systems of future construction in coastal wetlands floodplain areas; and
- maintain natural and man-made protective features in coastal hazard areas. Low maintenance methods such as marsh and beach restoration shall be first priority treatment in coastal hazard areas. Structural measures shall be implemented only as a last resort.
- encourage state and local permitting agencies to negotiate, through their administrative processes, to obtain or otherwise set aside, floodplain lands where their preservation is necessary to reduce flood loss and as mitigation where a proposed project impacts on some aspect of the coastal zone.

Development in New Hampshire's coastal flood hazard and tidal wetland areas occurred prior to the creation of the state Wetlands Board. Since its creation, the Wetlands Board has systematically denied requests for fill to

increase developable lots within these developed areas. In addition, new development within the sewerage areas (see map 3-4) of Hampton, New Castle, Durham, Dover, Newington, Newmarket, Rollingsford, Exeter, and Newfields cannot be located in the floodplain (E.O. 11988), further prohibiting development in flood hazard areas outside tidal wetlands jurisdiction.

Also, the Water Supply and Pollution Control Division prohibits on-site disposal systems within the 50-year floodplain, further restricting redevelopment in developed areas outside the Wetlands Board jurisdiction. Cumulatively, these management practices effectively restrict future development and redevelopment in coastal flood hazard areas.

The state is also involved in protecting against the loss of life and property in developed coastal hazard areas. Route 1-A, a state road, runs along the Atlantic coastline and, in some areas, is located in the floodplain. The state also owns most of the immediate shoreline, which it manages as public beaches, parks, recreation areas, access areas, or fish piers. In order to protect this public investment, the state is involved in beach renourishment after storms as non-structural shoreline protection measures and maintains seawalls, riprap and other structural measures along Route 1-A for public safety purposes to keep the roadway open and to protect public and private investments in the developed areas. Actions concerning State owned structures which are damaged or are in imminent danger from coastal flooding or erosion will be guided by comparisons of public benefit and cost. Consideration will be given, in order of priority, to relocation or removal, non-structural erosion or flood control projects, and structural erosion or flood control projects. Examples of non-structural projects include sand dune creation, beach nourishment, and planting of vegetative cover. Examples of structural projects include berms, groins, seawalls, and revetments. The Coastal Program will encourage private property owners to consider these priority responses to coastal flooding and erosion. Further, the Coastal Program will continue to inform the public as well as State and local agencies of the likelihood and consequences of future sea level rise and its impact on coastal erosion and flooding.

The Office of Civil Defense is the state coordination agency for the National Flood Insurance Program and reviews all publicly assisted development in the floodplain for compliance with Executive Order 11988. When it is necessary to build state structures in the floodplain, the Office of Civil Defense ensures consistency with the design and construction standards of the National Flood Insurance Program .

The state Civil Defense Office is also the lead agency in emergency management and the state hazard mitigation program, which acts to minimize loss of life and property during and after storm disasters. The Office of State Planning also participates in this effort through the Intergovernmental Review Process.

Key State Authorities

ENFORCEMENT

RSA 483-A:1, 3, 5, 6, 8 (Fill and Dredge in Wetlands; WB)
Chapter Wt 600, Coastal Wetlands (Wetlands Board regulations)
RSA 149:4, 8, 8a (Water Pollution and Disposal of Wastes; WSPCD)
RSA 149-E:1, 3 (Sewage Disposal Systems; WSPCD)
Executive Order 11988

ENHANCEMENT

RSA 107:1, 8 (the Civil Defense Act; OCD)
National Flood Insurance Program, OCD

Policy 10

Air Quality Protection

Maintain the air resources in the coastal area by ensuring that the ambient air pollution level, established by the New Hampshire State Implementation Plan pursuant to the Clean Air Act, as amended, is not exceeded.

Explanation

The Air Resources Agency is responsible for the prevention and control of air pollution. Through this agency the state acts to maintain a reasonable degree of purity and to promote the public health and welfare. This policy is carried out by means of the State Implementation Plan for Air Quality. All development actions must conform to the state and federal permit requirements for the discharge of substances into the air.

The Air Resources Agency operates a statewide permit system for construction and operation of new stationary sources of air pollution to ensure that the ambient air pollution level is not exceeded.

Key State Authorities

ENFORCEMENT

RSA 125-C: 1, 5, 6, 15 (Air Pollution Control; Air Resources)

Clean Air Act; EPA

Policy 11

Water Quality

Protect and preserve the chemical, physical, and biological integrity of coastal water resources, both surface and groundwater.

Explanation

New Hampshire supports the attainment of the national water quality goals for all waters of the coastal zone through coordination with existing water quality planning and management agencies. The State is committed to preserving water quality by, at a minimum, ensuring adherence to the Clean Water Act, as amended.

Water quality and quantity have become critical issues in the seacoast region of the state. There is a need to ensure quality of known water sources and to guard against the alteration of aquifer recharge areas. The Water Supply and Pollution Control Division of the Department of Environmental Services (WSPCD) is New Hampshire's lead agency for protecting the quality of coastal waters, as well as ground and surface waters.

The Office of State Planning also has an important role in water resource management, in accordance with RSA 4-C:22, I. The statute requires municipalities to submit any local water resource management and protection plan and implementing zoning ordinances to OSP for review and written comment relative to consistency with OSP adopted administrative rules. This must be done prior to local adoption in order for the plan or ordinance to take effect.

The Coastal Program will implement this policy through the following actions:

- control discharge or flow of any sewage or wastes to surface or groundwater, including industrial, municipal, private or agricultural sources;
- control any dredging, excavation, or construction that alters the characteristics of the terrain, impedes runoff, or creates unnatural runoff;
- review plans and regulate the construction of public domestic water supplies, highway construction that traverses watershed of any lake or pond used for storage of public drinking water, and design and construction of waste treatment facilities;
- regulate the subdivision of land, where lots of less than five acres will be created, to assure the adequacy of on-site sewage disposal, and for the design and construction of on-site systems;

- all development actions will conform to existing applicable State and Federal requirements governing water quality standards. Water supply sources shall be protected and sources of groundwater pollution shall be abated, to satisfy the provisions of state law or applicable federal law (Clean Water Act), whichever is more stringent;
- review local water resource management and protection plans and implementing zoning ordinances for consistency with the administrative rules of OSP.

WSPCD is responsible for the protection of sources of water and ice and has authority to require improvements in all public water supplies, to approve construction plans for such systems, to require improvements in or installation of sewage disposal facilities and to approve plans and specifications for such systems (RSA 148). WSPCD is directed to study future domestic water supply requirements, provide long-range planning to provide for needs, promulgate and enforce drinking water standards and approve construction or alteration of public water systems (RSA 148-A). The Water Quality section of WSPCD regulates agricultural runoff through implementation of their Non-point Source Program. These efforts are coordinated with the Soil Conservation Service at the county level to facilitate best management practices. In February of 1988, the Department of Environmental Services awarded funds to both the Strafford and Rockingham Regional Planning Commissions to study and plan for water resources in specific towns in those regions. In support of State efforts, aquifer mapping of the seacoast area, an important component of any coastal water resource planning, has been initiated by the U.S. Geologic Survey.

Control over water pollution and disposal of wastes is also a WSPCD function, including the classification and enforcement of surface water classifications. The Commission sets standards of design and construction for sewerage and waste treatment facilities and issues permits for any sewage or wastes discharged into surface or groundwaters (RSA 149). WSPCD protects water quality from dredging, excavation or construction that alters the terrain or impedes or alters natural runoff (149:8-a). Review and approval of subdivision and sewage disposal systems to assure sustainable on-site sewage disposal is also required. WSPCD approves plans for on-site disposal systems with minimum lot size based on use and soil types (RSA 149- E). WSPCD also controls the design, construction, and operation of wells used for discharged waste material, as required under the EPA underground injection control program. Activities in, or on the banks of, any state waters also require permit approval of the Wetlands Board.

The Department of Resources and Economic Development (DRED), under its Division of Forests and Lands, regulates timber harvesting to prevent erosion into adjacent bodies of water.(Part 304, Timber Harvesting Regulations).

The lead agency for hazardous waste management is the Waste Management Division of the Department of Environmental Services. The Division reviews and approves/disapproves applications for permits for all hazardous waste facilities. The Division is also responsible for implementation of the state's hazardous waste program.

Key State and Federal Authorities

ENFORCEMENT

RSA 148-B:5-7, 10 (Safe Drinking Water Act; WSPCD)

RSA 148:15, 16, 19, 20, 22, 23-25, 31, 32 (Protection of Sources of Water and Ice; WSPCD)

RSA 149:4, 8 (Water Pollution and Disposal of Wastes; WSPCD)

RSA 147-A:13a (General Provisions; Public Health Services)

RSA 146-A:3, 4, 11-c (Oil Spillage in Public Waters; WSPCD)

RSA 4-C:22,I (Local Water Protection Plans; OSP)

Rules for Local Water Resource Management and Protection Plans (OSP)

RSA 149-E:1, 3 (Sewage Disposal Systems; WSPCD)

RSA 483-A:1, 3, 5, 6, 8 (Fill and Dredge in Wetlands; WB)

Clean Water Act, EPA

Safe Drinking Water Act, EPA

RSA 12-E:1-4, 7 (Mining and Reclamation; DRED)

RSA 125-C:1, 5, 6, 15 (Air Pollution Control; Air Resources)

Part RES-F 304 Timber Harvesting Rules (DRED regulations)

Section 404, Corps of Engineers

Clean Air Act, EPA

ENHANCEMENT

RSA 107:8-a (the Civil Defense Act; OCD)

RSA 125-D:1, 3 (Acid Rain Control Act; Air Resources)

RSA 148-A:1 (Future Supplies of Water for Domestic Use; WSPCD)

RSA 430:28 (Insects, Pests and Plant Diseases, DOA)

Policy 12

Energy Facilities Siting

Ensure that the siting of any proposed energy facility in the coast will consider the national interest and will not unduely interfere with the orderly development of the region and will not have an unreasonable adverse impact on asthetics, historic sites, coastal and estuarine waters, air and water quality, the natural environment and the public health and safety.

Explanation

In response to current and projected energy demands, a number of energy related industries have chosen to locate in New Hampshire's coastal region. Several oil terminals, a refinery, an LPG plant, fuel storage facilities, and two electrical facilities are located along the Piscataqua River. A cogeneration plant is proposed for that area and a nuclear facility has been constructed at the southern end of the coast. The potential impacts of these facilities are extensive: land use concerns; adverse impacts on the marine environment; water and air quality degradation; changes in fish habitats and activity; and ocean transport questions. New Hampshire addresses this complex situation through two site evaluation committees, the Bulk Power Supply Facility Site Evaluation Committee and the Energy Facility Site Evaluation Committee, which bring together all concerned parties.

Concerning offshore oil and gas development, New Hampshire is affected by OCS oil and gas activities occurring on Georges Bank as regulated by the Department of the Interior and the Environmental Protection Agency. The New Hampshire Office of State Planning is responsible for reviewing, under federal consistency procedures, OCS oil and gas activities to ensure that the national interest is reflected and that adequate safeguards of fishery and other resources are maintained. OCS oil and gas leasing activities are not subject to consistency review. OSP serves as the review agency for New Hampshire on OCS issues and regularly advises the Governor's Office of OCS policy.

Key State and Federal Authorities

ENFORCEMENT

RSA 162-F:1, 3, 6, 8 (Electric Power Plant, Transmission Siting and Construction Procedure; PUC)

RSA 162-H:1, 3, 4, 9, 13 (Energy Facility Evaluation, Siting, Construction and Operations; PUC)

ENHANCEMENT

River and Harbor Act of 1899 (Section 10) Corps of Engineers

OCS Lands Act

Coastal Zone Management Act of 1972, as amended

TOPIC IV

PROVIDING FOR COASTAL DEPENDENT USES

Policy 13

Coastal Dependent Uses

Allow only water dependent uses and structures on State properties in Portsmouth-Little Harbor, Rye Harbor, and Hampton-Seabrook Harbor, at the State Port Authority, the State Fish Pier and State beaches (except those uses or structures which directly support the public recreation purpose). Allow only water dependent uses and structures over waters and wetlands of the State. Encourage the siting of water dependent uses adjacent to public waters.

Explanation

New Hampshire recognizes its coast as a limited resource and accommodates extensive coastal dependent development along its Atlantic shoreline. In the three major harbors (Portsmouth-Little Harbor, Rye Harbor, and Hampton-Seabrook Harbor) the vast majority of the shoreline is devoted to industrial, commercial or recreational uses that require direct access to coastal waters. These uses include: shipping, fishing, tour boating, power generation, refining, and recreational boating. The State provides and maintains the Port Authority Terminal in Portsmouth and three commercial fish piers in Portsmouth, Rye and Hampton. In cooperation with the State, the U.S. Army Corps of Engineers periodically dredges the Portsmouth Harbor-Piscataqua River channel, the Rye Harbor channel and the Hampton-Seabrook Harbor entrance channel. Further, the state cooperates with individual municipalities in their efforts to maintain navigable channels in their respective estuarine waterways. These actions support the state's policy by maintaining and developing port facilities and harbors of the state; thereby fostering and stimulating commerce, marine fisheries and recreational boating facilities.

In addition to the three harbor areas, the remaining Atlantic coast is devoted largely to coastal-dependent recreational uses due to the terrain and the exposure to the open sea. There are state beaches and parks, town- owned recreation areas, private marinas and other private facilities (refer to Map 3-1 and Figure 3-1 in Policy 7) that contribute to the public's use and enjoyment of coastal waters. State lands on the coast devoted to recreation may be available for non-water dependent activities that directly support the public recreation purpose.

In the Great Bay area, a much smaller percentage of the shoreline is devoted to water dependent uses. This is largely because of the natural limitations of the estuary (shallow waters, extensive mud flats) and the lack of public

infrastructure. The State policy of limiting public infrastructure will be employed to preserve the rural quality of the bay.

Except for the Piscataqua River shoreline in Newington, where continued water dependent industrial uses are encouraged, there are no other industrial uses of the estuary. There is commercial waterfront development at the head of tidal influence on the rivers in Exeter, Newmarket, Dover and along Dover Point. Public lands devoted to water dependent uses in the estuary are limited to several boat ramps, access for sportsmen and town recreation areas (refer to Map 3-2 and Figure 3-2 in Policy 7).

This policy will be enforced through the wetlands board and the Council on Resources and Development. The Wetlands Board allows only water-dependent structures such as docks and piers in or over the water or wetland (see Chapter Wt 400). This is an effective method of prohibiting non-water dependent uses along the shore. Some prohibited uses would be: housing, amusement parks or restaurants on piers, boardwalks, and boathouses. In addition, consistent with the Wetlands Board rules (605.01(e)), structures are not permitted that intrude into the wetlands beyond where previous projects define a line of encroachment. Finally, the filling of any saltwater wetlands will only be allowed if there is no reasonable alternative, fill is minimized, construction methods have minimal impact, and most importantly, there is an overriding public benefit.

The State Port Authority and the Wetlands Board are the State agencies that regulate and preserve navigation in coastal waters, through the assignment of moorings, and the permitting of boating related structures such as pilings, piers and wharfs. In this way the state uses it's powers to effect orderly development of navigable waters, thus ensuring their availability to coastal-dependent uses.

Section 10 of the River and Harbor Act establishes a permit system through the U.S. Army Corps of Engineers for placement of any structure in navigable waters of the United States.

Both Portsmouth and Newington have established zoning districts that provide exclusively for coastal-development uses in certain areas, and Portsmouth, New Castle and Seabrook all maintain town landings and/or docking facilities in these harbors. These actions indicate local support for the state policy of providing for coastal dependent uses.

This policy does not absolve an applicant from obtaining the required State and Federal permits. In addition, because a proposed project or activity is for a water dependent use, that fact does not guarantee that a permit will be granted.

The Council on Resources and Development reviews and approves any disposal or lease of State properties. Consistent with the adoption of the policies of the Coastal Program, the Council's decisions on such changes will be guided by this policy.

For private land adjacent to public waters State agencies should avoid undertaking, funding or approving non-water dependent uses when such uses would preempt reasonable foreseeable development of water dependent uses.

The following uses and facilities are considered as water dependent:

1. Uses which depend on the utilization of resources found in coastal waters (for example: fishing, mining of sand and gravel, aquaculture/mariculture activities);
2. Recreational activities which depend on access to coastal water (for example: swimming, fishing, boating, wildlife viewing);
3. Uses involved in the sea/land transfer of goods (for example: docks, loading areas, pipelines, short-term storage facilities);
4. Structures needed for navigational purposes (for example: dams, lighthouses, bouys);
5. Flood and erosion protection structures (for example: breakwaters, bulkheads);
6. Facilities needed to store and service boats and ships (for example: marinas, boat repair/construction yards);
7. Uses requiring large quantities of water for processing and cooling purposes (for example: hydroelectric power plants, fish processing plants, pumped storage power plants);
8. Uses which operate under such severe time constraints that proximity to shipping facilities becomes critical (for example: firms processing perishable foods);
9. Scientific/Educational activities which, by their nature, require access to coastal waters (for example: certain meteorological and oceanographic activities);
10. Support facilities which are necessary for the successful functioning of permitted water dependent uses (for example parking lots, snack bars, first aid stations, short-term storage facilities); and
11. Those uses for which structures are built that have an overriding public benefit (for example: bridges, roads, sewer treatment plants and outfalls), where public access is provided to the maximum extent practicable.

For support facilities, though these uses must be near the given water dependent use, they should, as much as possible, be sited inland from the water dependent use rather than on the shore.

Uses that require large quantities of water for processing or cooling, or require material that is transported on navigable waters are not necessarily water dependent uses. Fish processing plants, electric generating plants, manufacturing plants and warehouses do not have to be located directly on the

shoreline in order to function. These uses can be located back from the shoreline and function as long as they have direct access to the water via pipeline or transportation corridor. The pipeline, or transportation right-of-way, is the water dependent use for these activities.

The New Hampshire Coastal Program will support the work of the Port Authority, DRED, Fish and Game, the Wetlands Board and the 17 coastal communities in managing the activities and facilities mentioned above. The Program will also support efforts to ensure that future needs for coastal-dependent activities are met in balance with other coastal uses and within the constraints of the natural environment. Further, in the Great Bay area, special attention will be paid to balancing those needs with the policy of preserving the rural quality of the bay.

To date, the Coastal Program has provided financial and technical assistance for such things as:

- a marketing project by the Port Authority to promote increased use of their terminal in Portsmouth Harbor;
- providing additional public docking facilities at Prescott Park in Portsmouth;
- improvement to DRED's boat ramp at Rye Harbor; and
- a Port Authority project to realign the moorings in Little Harbor to provide additional mooring space and improve navigation.
- a major Port Study examining development alternatives.

In addition to providing financial and technical assistance, the Coastal Program will strive to improve coordination at all levels of government. For example, Program staff worked closely with the Governor's Office to organize a meeting about the future of the Port of Portsmouth involving state and local officials and private interests.

Key State and Federal Authorities

ENFORCEMENT

RSA 483-A:1, 3, 5, 6, 8 (Fill and Dredge in Wetlands; WB)

Chapter Wt 400, Shoreline Structures (Wetlands Board regulations)

Chapter Wt 600, Coastal Wetlands (Wetlands Board regulations)

RSA 271-A:2-4, 13 (New Hampshire State Port Authority, PA)

Rules & Regulations Pertaining to Harbors and Tidal Waters (Port Authority)

RSA 206:10, 15-a, 20, 23, 26 (Fish and Game Commission; F&G)

RSA 207:54 (General Provisions as to Fish and Game; F&G)

RSA 211:1, 8, 8a, 17b, 17c, 18, 19a, 29, 30, 31, 37, 46a, 48, 48a, 49, 53, 55, 55a, 61, 62c, 62e, 63a, 65, 66, 71-75 (Fish, Shellfish, Lobster and Crabs; F&G)

RSA 271:8-9 (Pilots, Harbor Masters and Public Waters; PA)

Clean Water Act (Section 404), Corps of Engineers

River and Harbor Act of 1899 (Section 10) Corps of Engineers

ENHANCEMENT

RSA 12-A:1-a, 7-a, 17, 18 (Department of Resources and Economic Development)

RSA 211:18b, 18c, 27, 46a, 49 (Fish, Shellfish, Lobsters, and Crab; F&G)

RSA 212:1, 2, 10, 11, 18, 19, 21, 25, 32 (Propagation of Fish and Game; F&G)

RSA 213:I, IV, VII (Atlantic Marine Fisheries; F&G)

RSA 216-B:1, 4 (Hampton Harbor Channel and Beach Erosion Control; DRED)

RSA 216-C:1, 4 (Back Channels of Portsmouth Harbor; DRED)

Policy 14

Dredging and Dredge Spoil Disposal

Preserve and protect coastal and tidal waters and fish and wildlife resources from adverse effects of dredging and dredge disposal, while ensuring the availability of navigable waters to coastal-dependent uses.

Encourage beach renourishment and wildlife habitat restoration as a means of dredge disposal whenever compatible.

Explanation

State and federal dredging operations are largely limited to periodic harbor and river channel maintenance projects. Shoaling in navigable channels occurs in all harbors. Dredging is an expensive and environmentally sensitive issue. Proper management of dredging activities and disposal of spoils is a continuing concern, as are sources of funding for maintenance dredging of channels.

The state Wetlands Board has extensive permit authority over any filling, dredging, excavation and construction activities in the waters and wetlands of the state. Permits are conditioned to minimize impact on environmentally sensitive areas.

The Water Supply and Pollution Control Division also issues joint permits with the Wetlands Board for dredging activities in coastal waters in order to protect water quality. The Bureau of Hazardous Waste is often called upon for technical assistance during the permitting deliberations of these agencies.

The state Port Authority, the Department of Resources and Economic Development and the New Hampshire Department of Transportation are jointly responsible for working with the Corps of Engineers on harbor channel maintenance projects. All funding authorization for state harbor channel dredging is subject to state legislative action and Governor and Council approval.

The state Port Authority also works with the Corps of Engineers on redesignating offshore dredge disposal areas and in coordinating onshore disposal sites for private dredge and fill projects.

Maintenance dredging of the navigable channels to ensure access for fishing, boating, and oceanborne commerce is primarily a financial concern. In Hampton Harbor, sand which accumulates in the channel has been dredged, as necessary, and used for beach renourishment or disposed of in offshore areas. In Portsmouth Harbor, dredge material has been disposed of on upland sites.

Key State and Federal Authorities

ENFORCEMENT

RSA 149:8-a (Water Pollution And Disposal of Wastes; WSPCD)

RSA 271:8, 9 (Pilots, Harbor Masters and Public Waters; Port Authority)

RSA 271-A:2-4, 13 (New Hampshire State Port Authority; PA)

RSA 483-A:1, 3, 5, 6, 8 (Fill and Dredge in Wetlands; WB)

Rules and Regulations Pertaining to Harbors and Tidal Waters (Port Authority)

Chapter Wt 600, Coastal Wetlands (Wetlands Board regulations)

Clean Water Act (Section 404) Corps of Engineers

Rivers and Harbors Act of 1899 (Section 10) Corps of Engineers

Marine Protection, Research and Sanctuaries Act (Section 103) Corps of Engineers

ENHANCEMENT

RSA 147,147-B, (Hazardous Waste Management Program; BHW), (Hazardous Waste Clean-up; BHW)

RSA 216-B:1, 4 (Hampton Harbor Channel and Beach Erosion Control; DRED)

RSA 216-C:1, 4 (Back Channels of Portsmouth Harbor; DRED)

Coastal Zone Management Act of 1972, as amended (Section 307)

TOPIC V

PRESERVATION OF HISTORIC AND CULTURAL RESOURCES

Policy 15

Historic Preservation

Support the preservation, management, and interpretation of historic and culturally significant structures, sites and districts along the Atlantic coast and in the Great Bay area.

Explanation

The seacoast region of New Hampshire has a long and rich history. According to various historical accounts, the Isles of Shoals were used during the late sixteenth century by European fishermen. The first recorded exploration of Portsmouth Harbor and the Piscataqua River was in 1603 by Captain Martin Pring from England, followed by the first permanent settlements at Dover Point and at "Ponnaway" (Odiorne Point) around 1623. These early settlers found abundant fishing, trading and lumbering; activities that served as the foundation for early development of the region.

Commerce ranged from a flourishing mast and shipbuilding trade in the 1700's, to the industrial development of the 1800's, and a fishing industry that is still important to the spreading development of the region. The history of the seacoast tells us much about the development of New Hampshire, New England and the country.

Past and present efforts to preserve the vestiges of this heritage have resulted in many sites in the seacoast having some type of official designation as being historically significant (see Figure 3-4). This includes:

- 72 properties that have been placed on the National Register of Historic Places;
- five locally established historic districts (Portsmouth, Newington, Exeter, Newmarket, Durham);
- six sites owned and managed by the Historic Preservation Office; and
- several historic markers commemorating the sites of important events or structures.

The State Historic Preservation Office (SHPO) within the newly created Department of Libraries and Cultural Affairs is the key state agency responsible for historic preservation in New Hampshire. The SHPO will contribute towards this policy by reviewing any federal or state undertaking,

or private undertakings requiring federal or state permits, which may affect historic resources. SHPO may require alternative measures to mitigate adverse impacts where necessary, to ensure the protection and preservation of historic resources.

The State Historic Preservation Office and the State Historic Preservation Review Board approve nominations to the National Register of Historic Places. Federal or federally assisted undertakings are reviewed for consistency with Section 106 of the National Historic Preservation Act of 1966 as amended (16 U.S.C. 470). Federal projects deemed not to cause significant negative impacts on the historic qualities of national register or national register eligible sites or districts shall be issued a certificate of consistency by the SHPO.

In 1987 the Office of State Planning (OSP) and SHPO developed a Memorandum of Agreement (Appendix C) whereby OSP will monitor building permit applications in the Portsmouth Historic District to determine its effect on historic resources of that area. This serves as a safeguard to insure that SHPO is made aware of any projects within these areas in a timely manner. SHPO agrees to review these projects against the criteria put forth in the draft regulations of February 1987 (to supersede Res-H 400) (Appendix C).

In addition, any state licensed, assisted or contracted projects, activities, or programs must be submitted to SHPO for determination of the effects of such undertakings on historic resources. This includes privately sponsored projects involving sewer hook ups, which require state permits. SHPO reviews these projects to determine their impact on historic resources and may recommend or require alternative undertakings or measures to mitigate adverse effects, where necessary, in order to ensure the preservation of historic resources. In conducting this review, SHPO refers to the current list of designated historic properties and may also conduct field investigations to identify and protect any historic resource discovered on the site.

The SHPO is also responsible for a statewide inventory of historic properties and for the management of the state's historic properties. Both the HPO and the Office of State Planning provide technical assistance to communities on historic preservation.

Of particular importance in the coast is the Portsmouth historic area. The City of Portsmouth protects its coastal historic resources through a Historic District Ordinance, adopted in accordance with RSA 31:89. The District extends along the urbanized Portsmouth harbor waterfront, including much of the city's central business district. Historic port warehouses, now commercial shops and restaurants, and historic residences, dominate this port and harbor waterfront. Thirty-one buildings and areas within this district have been placed on the National Register of Historic Places. Together local, state and federal historic regulations effectively manage private and public development which may affect the historic resources of the coast.

The Coastal Program has provided financial assistance to the Department of Resources and Economic Development for developing management plans for its coastal properties. This includes three historic sites - Fort Stark, Wentworth-Coolidge Mansion and Odiorne Point. Financial assistance was also used by the City of Portsmouth to convert a historically significant church

into a Children's Museum. This support of state and local preservation efforts will continue under this Program. Another area of interest will be programs and projects based on the cultural heritage of the coast (e.g. the Piscataqua Gundalow Project).

Key State and Federal Authorities

ENFORCEMENT

Memorandum of Agreement, State Historic Preservation Office

Chapter Res-H 400 State Historic Resources Review Procedures (SHPO)

RSA 162-C:1,2 (Council on Resources and Development; OSP)

RSA 227-C:4-7 (State Historic Preservation Office; SHPO)

ENHANCEMENT

National Historic Preservation Act

National Register of Historic Places

River and Harbor Act of 1899 (Section 10) Corps of Engineers

Clear Water Act (Section 404) Corps of Engineers

FIGURE 3-4

SIGNIFICANT HISTORIC DISTRICTS/SITES IN OR ADJACENT TO THE COASTAL BOUNDARY

Local Historic Sites and Districts

Portsmouth Historic District
Durham Historic District
Newington Historic District
Newmarket Industrial and Commercial Historic District
Exeter Historic District
Bloody Point Historic Site (Newington)

State Historic Sites and Properties

New Castle - Fort Constitution, Fort Stark
Portsmouth - Wentworth-Coolidge Mansion
Rye - Isles of Shoals, Atlantic Cable and Sunken Forest, Odiorne's Point

National Register (as of January 1, 1980) (NHL) National Historic Landmarks

New Castle - Fort Constitution

Portsmouth -	Portsmouth Athenaeum
Samuel Beck House	Portsmouth Public Library
Benedict House	George Rogers House
Jeremiah Hart House	Rundlet-May House
John Hart House	St. John's Church
Phoebe Hart House	Shapley Town House
Hart-Rice House	Henry Sherburne House
Richard Jackson House (NHL)	Simeon P. Smith House
John Paul Jones House (NHL)	South Parish/South Unitarian
Gov. John Langdon House (NHL)	Universalist Church
Larkin-Rice House	Strawberry Banke Historic District
Macphedris-Warner House (NHL)	Wentworth-Coolidge Mansion
Mofatt-Ladd House (NHL)	Gov. John Wentworth House
James Neal House	Wentworth-Gardner House (NHL)/
New Hampshire Bank Building	Tobias Lear House
Nutter-Rymes House	Whidden-Ward House
Old North Cemetery	Rockingham Hotel
Daniel Pinkham House	
Franklin Block	

Rye - Isles of Shoals
The Parsons Homestead
Elijah House

Newmarket - Edward Sewall Garrison
Samuel Tenney House
Exeter Waterfront Commercial Historic District

Hampton - Reuben Lamprey Homestead

Figure 3-4 Significant Historic Districts/Sites in or adjacent to the Coastal Boundary (cont.)

Hampton Falls - Unitarian Church

Rollinsford - Salmon Falls Mill Historic District

Stratham - John Crockett House
Cornet Thomas Wiggin House
Deacon Samuel and Taber Lane Homestead

Dover - Michael Reed House
Sawyer Building
Samuel Wyatt House
Samuel Emerson Farm

Durham - General John Sullivan House
Durham Historic District

TOPIC VI

MARINE AND ESTUARINE RESEARCH AND EDUCATION

Policy 16

Research and Education

Promote and support marine and estuarine research and education that will directly benefit coastal resource management.

Explanation

Research

Marine and estuarine research on critical coastal problems and issues can contribute positively to State and local management of coastal resources in New Hampshire. The availability of research results to those involved with resource/land use management decision making at the local, state and federal levels can improve our understanding and, therefore, our management of this resource. For example, an analysis of water quality data in the Piscataqua River-Portsmouth Harbor area found that this very well-mixed water system is able to absorb large volumes of wastewater effluent without any change in water quality. This information is being used by the Environmental Protection Agency (EPA) and the Water Supply and Pollution Control Division (WSPCD) to determine the necessary level of treatment in upgrading Portsmouth's wastewater treatment plant.

Those state agencies which conduct applied research to support their various regulatory and management responsibilities include the Fish and Game Department and WSPCD. For example, Fish and Game conducted a two-year, comprehensive inventory of the algae, vascular plants, invertebrates, finfish, shellfish, birds and mammals of the Great Bay estuarine system. This was done to enable them to assess qualitative and quantitative damages from coastal oil spills. In addition to these efforts, the New Hampshire Audubon Society conducts research on threatened and endangered species in the coastal area in cooperation with the Fish and Game Department. Fish and Game is also undertaking a study of the shortnose sturgeon.

WSPCD is responsible for, among other things, monitoring and enforcing water quality standards and enforcing the State's oil spill control laws and regulations. Examples of research carried out to meet these responsibilities include:

- using a research vessel and a mobile lab to monitor coastal water quality;
- the Portsmouth Harbor Oil Spill Control Project, including a tidal current and boom deployment study, an oil spill trajectory model and an oily debris disposal study; and

- a detailed urban stormwater runoff study in Durham.

In 1973, the State established the Marine Research and Development Program at UNH. Recently reorganized as part of the Institute of Marine Science and Ocean Engineering, the Institute will still provide marine teaching, research and public service programs and facilities through the University's academic departments and through specialized programs. Through the Institute and the Sea Grant Program, UNH faculty, staff and students have been and continue to be actively involved in many aspects of estuarine and marine research.

Marine activities at UNH are enhanced by a number of natural laboratories which exist within minutes of the University campus at Durham - the Great Bay estuary, the open ocean, tidal and freshwater rivers. Research facilities exist in all of the following settings.

- Jackson Estuarine Laboratory
- Coastal Marine Laboratory at Fort Constitution
- Shoals Marine Laboratory
- Complex Systems Research Center
- Research vessels and shore support facilities

These specialized research facilities can and will provide a resource for coastal program activities. The oldest facility is the Shoals Marine Laboratory on one of the Isles of Shoals, ten miles off the coast. Established as a field station in 1928, it is now operated by UNH in cooperation with Cornell University. The newest facility, now under construction, will be at Fort Constitution in New Castle.

The majority of research at the University has occurred through the Jackson Estuarine Laboratory at Adams Point in Durham. Professors, students and researchers from the departments of botany and plant pathology, zoology, microbiology and earth sciences have been the primary users of the Lab.

Examples of research that has been conducted at Jackson Lab include:

- long-term environmental baseline studies of the physical and chemical characteristics of the estuary;
- impact of trace metals on a variety of organisms;
- red tide studies; and
- system dynamic studies (sedimentation analysis, nutrient flow).

The proposed Great Bay Reserve (section 315 of the CZMA) will support the research efforts as part of its management plan. This support will be primarily through staffing at the Jackson Estuarine Laboratory and funding for the purchase of equipment for establishing monitoring stations in the Bay. Facilitating the translation of research projects for the general public and decision-makers in coastal management is a key objective of the Coastal Program's policy on marine research and education.

Education

Better management through education is an essential component of any resource management program. The New Hampshire Coastal Program's efforts to balance resource protection with coastal development will not succeed without the support of a well-informed public. One of the major roles of the Coastal Program in this area has been to encourage different agencies and organizations to participate in cooperative ventures on marine/estuarine education (co-sponsored programs, events, workshops ...). Those agencies and groups with whom the Coastal Program has coordinated activities are described below.

From 1983 to the present, the Coastal Program has co-sponsored a "Coastweek" with the UNH Sea Grant Extension Program. This week-long celebration of the coastal environment offered programs targeted to provide the public with a variety of educational experiences that generate an awareness of the value and diversity of coastal resources.

Substantial capabilities for offering educational programs of significance to New Hampshire exist within the University of New Hampshire, particularly with the Cooperative Extension Service (Sea Grant). The National Sea Grant College Program, which supports research, teaching and marine public service programs, was created by the US Congress to encourage careful development and wise use of ocean resources. The Sea Grant Program connects the University's marine-related resources with the needs of the general public. Professional staff and trained volunteers provide programs and information for students, teachers, coastal related businesses and industries, local officials, civic groups, seacoast residents and interested citizens. Also, the University's Outdoor Education Program utilizes the marine and estuarine environments as outdoor classrooms for training students in interpretive skills.

Of the state agencies involved in coastal resource management, Fish and Game and the Department of Resources and Economic Development (DRED) have formal public education/interpretation programs. Fish and Game's Conservation Education Division carries out various programs - in the seacoast and statewide - in hunter education and safety, saltmarsh interpretation, fisheries, and wildlife management. These education efforts demonstrate the many benefits of Fish and Game's activities while also encouraging conservation practices by all sportsmen. The Division of Parks within DRED is a partner along with the UNH Sea Grant Extension Program and the Audubon Society of New Hampshire, in the operation of the Nature Center at Odiorne State Park. The Nature Center conducts a variety of interpretive programs on the marine environment. During the Summer of 1986, more than 10,000 coastal residents and visitors came to the Center and 95 percent of the programs offered were attended at the targeted capacity. The Coastal Program has become actively involved in sponsoring tours and serving on the planning committee for the Center's spring and summer programs. Staff of the Coastal Program has also been appointed to the University's Marine Education Advisory Committee.

Several private, non-profit conservation organizations are involved in public education on the seacoast. They include:

- the Piscataqua Gundalow Project, combining maritime history with ecological awareness via a replica of the gundalows that once plied the waters of the estuary;
- the Audubon Society of New Hampshire and its Seacoast Chapter, sponsoring regularly scheduled field trips and lectures;
- the Society for the Protection of NH Forests, sponsoring periodic field trips in the coast; and
- the Great Bay Conservation Trust, a new organization whose objectives include "an increased awareness of the value of the estuary."

In summary, the NH Coastal Program has and will continue to work with these various organizations, and others if appropriate, to identify and support those research and education programs that will directly benefit coastal resource management efforts. To date, the Coastal Program has supported research efforts of WSPCD, Fish and Game and an interdisciplinary team at UNH, and education efforts of the UNH Marine Program. Also, the Program will promote improved cooperation among the various organizations in carrying out their research and education programs.

Key State and Federal Authorities

ENHANCEMENT

RSA 146-A:3, 4, 11-c (Oil Spillage in Public Waters, WSPCD)

RSA 149:4 (Water Pollution and Disposal of Wastes, WSPCD)

RSA 214:1-d (Licenses; Fish and Game)